



RM-6077

B. Arch. I (Sem. II) Examination

May / June – 2010

Surveying & Levelling

(New Course)

Time : 2 Hours]

[Total Marks : 50

Instructions :

(1)

नीचे दर्शाविए निशानीवाणी विगतो उत्तरवडी पर अवश्य लपवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. Arch. 1 (Sem. 2)

Name of the Subject :
Surveying & Levelling (New)

Subject Code No. : **6 0 7 7** Section No. (1, 2,.....) : **Nil**

Seat No. :

Student's Signature

- (2) Assume suitable data and specifically mention it.
(3) Figures to the **right** indicate full marks.
(4) Use of Nonprogrammable scientific calculator is permitted.

Q. 1	(a) Explain following Terms (Any four): Well conditioned Triangle, Levelling, base line, BB, offset, Traverse	04															
	(b) What is ranging? Explain the process of ranging.	04															
Q-2	Attempt Any two	10															
	(a) Tabulate & Calculate RL of all the stations if following readings are taken with a 3 m leveling staff. Instrument is shifted after 3 rd & 5 th reading. Use any method for calculation of RL. Benchmark was taken on a 1 st station having 100 m RL. 0.55, 1.25, 2.565, 3, 1.25, 1.36, 0.45, 0.55, 0.8																
	(b) The bearings of sides of triangle AB, BC & CA are 60°, 130°, & 270° respectively. Compute the internal angles of Triangle.																
	(c) Following readings are taken with a magnetic compass. It has been observed that few stations are suspected for local attraction. Find out such stations & calculate correct bearings with check.																
	<table border="1"><thead><tr><th>Line</th><th>FB</th><th>BB</th></tr></thead><tbody><tr><td>AB</td><td>60° 30'</td><td>240° 30'</td></tr><tr><td>BC</td><td>99° 15'</td><td>278° 0'</td></tr><tr><td>CD</td><td>38° 45'</td><td>221° 30'</td></tr><tr><td>DE</td><td>321° 15'</td><td>139° 45'</td></tr></tbody></table>	Line	FB	BB	AB	60° 30'	240° 30'	BC	99° 15'	278° 0'	CD	38° 45'	221° 30'	DE	321° 15'	139° 45'	
Line	FB	BB															
AB	60° 30'	240° 30'															
BC	99° 15'	278° 0'															
CD	38° 45'	221° 30'															
DE	321° 15'	139° 45'															

Q-3	(a) Calculate area bounded between Chain line & Boundary using Simpson's Rule .	04																
	<table border="1"> <tr> <td>Offset (m)</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>3</td> <td>5</td> <td>1</td> </tr> <tr> <td>Chainedge (m)</td> <td>5</td> <td>10</td> <td>15</td> <td>20</td> <td>25</td> <td>30</td> <td>35</td> </tr> </table>	Offset (m)	2	3	4	5	3	5	1	Chainedge (m)	5	10	15	20	25	30	35	
Offset (m)	2	3	4	5	3	5	1											
Chainedge (m)	5	10	15	20	25	30	35											
	(b) Explain Instruments used in Plane table surveying , its use & any one method of Orientation	06																
Q-4	(a) explain following terms : FS, True Meridian, Magnetic Declination, CP,	5																
	(b) Explain types of leveling Staff & its use.	5																
Q-5	Write short notes on following (Any Three)	12																
	<ol style="list-style-type: none"> 1. Use of Contour map 2. GIS 3. Profile levelling 4. instruments used in chain surveying 5. Total station 6. Chaining 																	